

PO 126504 /
 Rec 320431 / 7-14-15

NPTA

AVILES ENGINEERING CORPORATION

5790 Windfern, Houston, Texas 77041 - 713-895-7645 - Fax 713-895-7943

Invoice

Invoice Date: 06/30/15 AEC Invoice No.: C061562
 AEC Project No.: C134-15 Customer ID: FTBCENG

Client: Fort Bend County Engineering

Project: HEB - Fry Road @ Grand Parkway Left Turn Lane

Purchase Order No.: 126504

Bill to:	Mail to:
Rick J. Staigle, PE, PTOE First Assistant County Engineer Fort Bend County 301 Jackson Street Richmond, Texas 77469	Same

Services Provided:	Net Amount Due
Construction Materials Testing and Inspection Services on the above Referenced Project <i>(See Attached Page/s for Invoice Backup)</i>	\$4,574.75
Subtotal	\$4,574.75
Terms: Net 30	Total Due this Invoice: \$4,574.75

	Purchase Order (PO) Amount: \$8,384.50
	Amount of this Invoice: \$4,574.75
	Amount of Previous Invoices: \$0.00
	Amount Invoiced including this Invoice: \$4,574.75
	Amount Remaining after this Invoice: \$3,809.75
	Percent Complete: 54.6%

RJS
 7/8/15

Please Remit to:
Aviles Engineering Corporation
 5790 Windfern Road
 Houston, Texas 77041

Please Include Invoice Number on all Remittance. Thank You and We Appreciate Your Business.

SR
 6/30/15

Project: HEB - Fry Road @ Grand Parkway Left Turn Lane

AEC Project No.:

C134-15

Client: Fort Bend County Engineering

Invoice Date: 06/30/15

Invoice No.:

C061562

Report				Unit		
Date	No.	Description	Quantity	Unit	Rate	Amount
4/21	1	Soil Sampling - Minimum Charge	4	Hour	\$ 54.00	\$ 216.00
		Vehicle - Minimum Charge	4	Hour	\$ 10.00	\$ 40.00
		Project Engineer	0.3	Hour	\$130.00	\$ 39.00
4/21	2	MD Relationship of Cement Stab. Sand (D 558)	1	Each	\$210.00	\$ 210.00
		Project Engineer	0.3	Hour	\$130.00	\$ 39.00
4/21	3	Compressive Strength of Cement Stabilized Sand	4	Each	\$ 70.00	\$ 280.00
		Project Engineer	0.3	Hour	\$130.00	\$ 39.00
4/23	4	Field Compaction Testing	8	Hour	\$ 54.00	\$ 432.00
		Field Compaction Testing - Overtime	2.25	Hour	\$ 81.00	\$ 182.25
		Vehicle Charge	10.25	Hour	\$ 10.00	\$ 102.50
		Nuclear Density Gauge	10.25	Hour	\$ 10.00	\$ 102.50
		Project Engineer	0.3	Hour	\$130.00	\$ 39.00
4/23	5	Compressive Strength of Cement Stabilized Sand	4	Each	\$ 70.00	\$ 280.00
		Project Engineer	0.3	Hour	\$130.00	\$ 39.00
4/24	6	Field Compaction Testing	8	Hour	\$ 54.00	\$ 432.00
		Field Compaction Testing - Overtime	2.25	Hour	\$ 81.00	\$ 182.25
		Vehicle Charge	10.25	Hour	\$ 10.00	\$ 102.50
		Nuclear Density Gauge	10.25	Hour	\$ 10.00	\$ 102.50
		Project Engineer	0.3	Hour	\$130.00	\$ 39.00
4/24	7	Compressive Strength of Cement Stabilized Sand	4	Each	\$ 70.00	\$ 280.00
		Project Engineer	0.3	Hour	\$130.00	\$ 39.00
4/29	8	Concrete Field Inspection - Overtime	3.25	Hour	\$ 81.00	\$ 263.25
		Concrete Field Inspection	3.75	Hour	\$ 54.00	\$ 202.50
		Vehicle Charge	7	Hour	\$ 10.00	\$ 70.00
		Concrete Compression Test (6" x 12" Cyl)	6	Each	\$ 16.00	\$ 96.00
		Project Engineer	0.2	Hour	\$130.00	\$ 26.00
4/29	9	Concrete Compression Test (6" x 12" Cyl)	6	Each	\$ 16.00	\$ 96.00
		Project Engineer	0.2	Hour	\$130.00	\$ 26.00
4/30	10	Cylinder Pick Up	2.25	Hour	\$ 54.00	\$ 121.50
		Vehicle - Minimum Charge	4	Hour	\$ 10.00	\$ 40.00
		Project Engineer	0.2	Hour	\$130.00	\$ 26.00
6/25	11	Concrete Pavement Cores - Minimum Charge	1	Each	\$338.00	\$ 338.00
		Measuring Thickness of Concrete Cores	1	Each	\$ 13.00	\$ 13.00
		Project Engineer	0.3	Hour	\$130.00	\$ 39.00
					Total =	\$4,574.75



REPORT OF SAMPLE PICK UP

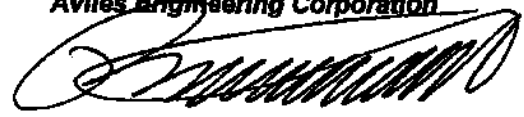
PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 4/21/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15
	AEC REPORT NO.: 1
TECHNICIAN: A. Shumate, NICET III	REG.: 2.25
	O.T.:

REMARKS: An Aviles Engineering Corporation (AEC) technician arrived at Hallett Materials to pick up one (1) representative sample of 1.5 Sack Stabilized Sand. The sample was delivered to AEC's laboratory for testing to determine the moisture density relationship.

If there are any questions concerning this report or if we can provide any additional information, please contact us at your convenience.

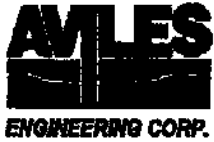
COMMENTS:

Distribution: Rick Staigle, PE (Fort Bend County)

Respectfully submitted,
Aviles Engineering Corporation


Ronald E. Ortwerth, P.E.
Senior Vice President

The sample was taken to be representative of the particular area sampled but may not necessarily be indicative of the entire stockpile or area where the material was sampled. This report is for the exclusive use of the client to whom it is addressed and should not be reproduced without our permission.



REPORT OF MOISTURE DENSITY RELATIONSHIP TESTING ON SOIL

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 4/21/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15
	AEC REPORT NO.: 2 Page 1 of 2

Tested by:

TECHNICIAN/s: N. Patel, ACI-I

REMARKS: One (1) sample of 1.5 Sack Stabilized Sand was sampled from Hallet Materials to determine moisture - density relationship characteristics for use in compaction testing on the above referenced project.

The results of the testing performed on the sample can be found on the attached Moisture Density Relationship Form.

The material tested would be classified as a **1.5 Sack Cement Stabilized Sand (Hallett Materials)**.

If there are any questions concerning this report or if we can provide any additional information, please contact us at your convenience.

COMMENTS:

Distribution: Rick Staigle, PE (Fort Bend County)

*Respectfully submitted,
Avilas Engineering Corporation*

Ronald E. Ortwerth, P.E.
Senior Vice President

COMPACTION TEST REPORT

Curve No.: 2

Project No.: 134-15

Date: 4-21-15

Project: HEB - Fry Road @ Grand Parkway Left Turn Lane

Client: Fort Bend County Engineering

Location: Hallet Materials

Sample Number: 388 (2)

Remarks:

MATERIAL DESCRIPTION

Description: 1.5 Sack Stabilized Sand

Classifications -

USCS:

AASHTO:

Nat. Moist. =

Sp.G. =

Liquid Limit =

Plasticity Index =

%<No.10 =

%<No.40 =

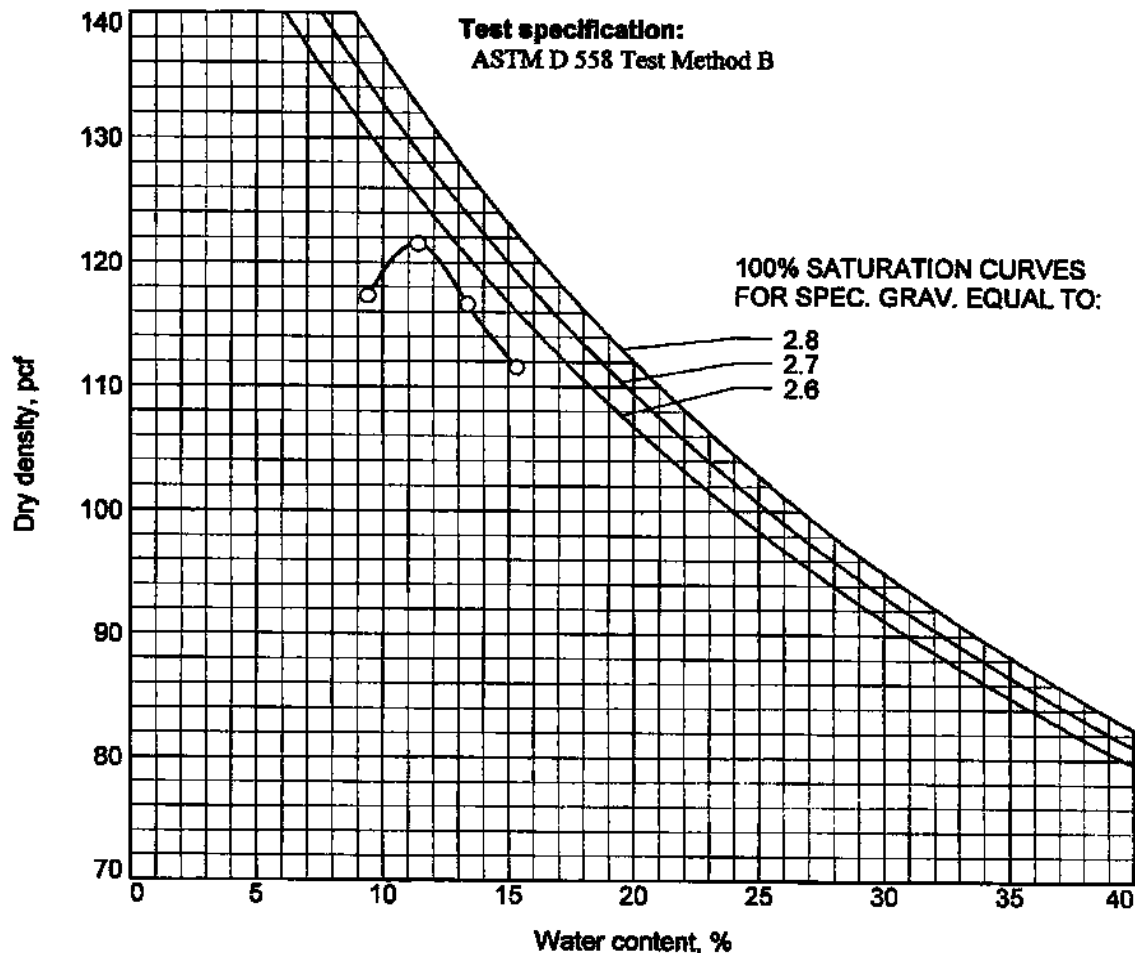
%<No.60 =

%<No.200 =

TEST RESULTS

Maximum dry density = 121.5 pcf

Optimum moisture = 11.3 %



Figure



REPORT OF COMPRESSIVE STRENGTH OF CEMENT STABILIZED SAND

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 4/21/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15
	AEC REPORT NO.: 3 Page 1 of 1

REMARKS: A representative sample was obtained from a truck load of cement stabilized sand as-delivered from Hallett Materials on the above referenced project. The representative sample was sealed in a plastic bag and was delivered to Aviles Engineering Corporation's laboratory to be tested for compressive strength. A moisture content was performed on the sample in accordance with ASTM D 2216. Compressive strength specimens were molded in an as-received moisture content in 4.0" diameter, 4.5" high vertically split molds in general accordance with ASTM D 558-96 Method A. The specimens were cured in the molds while sealed in plastic bags at approximately 73.4 degrees F until the age of test. The specimens were removed from the plastic bags and the molds, capped with gypsum plaster, if required, and were tested for compressive strength in general accordance with Section 7 of ASTM D 1633-00 to determine compliance with project specifications. The results are as follows:

SUPPLIER: Hallett Materials PLANT NO.: Katy - Hockley TICKET NO.: N/A
 TIME BATCHED: 9:10 AM TIME SAMPLED: 9:15 AM TRUCK NO.: N/A
 MIXTURE ID FROM TICKET: 1.5 SK Cement Stabilized Sand AVG. DRY DENSITY, PCF: 121.1
 TIME SPECIMENS MOLDED: 10:50 AM MOISTURE CONTENT OF MATERIAL AT THE TIME OF MOLDING: 9.3%

AREA WHERE LOAD WAS PLACED IN THE FIELD: Hallett Materials Katy Hockley Plant

Specimen ID	Date Tested	Age, hrs./days	Average Diameter, in.	Average Height, in.	Cross-Sectional Area, sq. in.	Maximum Load, lbs.	Compressive Strength, psi
224	4/23/15	48 Hours	4.01	4.58	12.63	7920	625
241	4/23/15	48 Hours	4.00	4.58	12.58	8060	640
HC Item 433 Minimum Average 48 Hour Comp. Strength = 100 psi						Average 48 Hour = 634	
242	4/28/15	7 Days	4.00	4.58	12.59	12040	955
222	4/28/15	7 Days	4.01	4.58	12.64	12810	1015
						Average 7 Day = 985	

The results indicate the strength level of the sample tested at 48 hours meets the minimum strength requirements of Harris County Item 433 for Cement Stabilized Sand for Bedding and Backfill Material.

If there are any questions concerning this report or if we can provide any additional information, please contact us at your convenience.

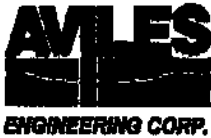
COMMENTS:

The Contractor was Jerdon

Distribution: Rick Staigle, PE (Fort Bend County)

Respectfully submitted,
 Aviles Engineering Corporation

Ronald E. Ortwerth, P.E.
 Senior Vice President



REPORT OF FIELD MOISTURE AND DENSITY TESTS

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 4/23/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15 AEC REPORT NO.: 4 Page 1 of 1

TECHNICIAN: N. Fuentes, NICET II TIME - REGULAR HOURS: 8 OVERTIME HOURS: 2.25

NUCLEAR GAUGE INFORMATION:		MANUFACTURER: <u>Troxler</u>	GAUGE DENSITY: <u>None</u>
MODEL: <u>3430</u>	SERIAL NO.: <u>68525</u>	ADJUSTMENTS: MOISTURE: <u>None</u>	
STANDARD COUNTS: DENSITY: <u>2588</u>	MOISTURE: <u>627</u>		

Tests Performed in General Accordance with ASTM D 6938-07b

MOISTURE DENSITY RELATIONSHIP DATA:

MDR RPT. NO.	VISUAL CLASSIFICATION OF SOIL	MDR PROCEDURE	MAX. DRY DENS., PCF	OPTIMUM MOISTURE, %
2	1.5 Sack Stabilized Sand (Hallett Katy-Hockley)	D 558	121.5	11.3

GENERAL AREA TESTED: Left Turn Lane West Bound South Fry Road from Station 1+20 to 3+50 (14' Wide)

TEST NO.	MDR NO.	ELEVATION	PROBE DEPTH, IN.	WET DENSITY, PCF	DRY DENSITY, PCF	MOISTURE CONTENT, %	COMPACTION, %	COMMENTS
1	2	Subgrade	8'	131.0	118.7	10.4	97.7	5 Pass
TEST LOCATION: <u>Station 1+60, 3' North of South Edge</u>								
2	2	Subgrade	8"	128.3	117.1	9.6	96.3	5 Pass
TEST LOCATION: <u>Station 3+10, 8' North of South Edge</u>								
3	2	Subgrade	8"	130.2	118.4	10.0	97.4	5 Pass
TEST LOCATION: <u>Station 3+50, 6' North of South Edge</u>								
TEST LOCATION: <u> </u>								
TEST LOCATION: <u> </u>								

COMMENTS: Specifications, Moist Content - % from Optimum Moisture	5 - Cem Stab Sand for Rdwy	NS to + NS	Min. 95	NS - Not Specified
B - % Compaction below Specified Requirement				NUP - Not Under Pavement
C - Retest of Previous Test	D - Moisture Content Exceeds Specified Limit	E - Moisture Content Below Specified Limit		

REMARKS: AEC monitored placement of the material tested.

The contractor was Jordan

Distribution: Rick Stalgle, PE (Fort Bend County)

Respectfully submitted,
Aviles Engineering Corporation

Ronald E. Ortwerth, P.E.
Senior Vice President



AVILES ENGINEERING CORPORATION (TBPE Firm Registration No. F-42)
 5790 Windfern, Houston, Texas 77041 - 713-895-7645 - Fax 713-895-7943

DAILY PROJECT ACTIVITY REPORT

CLIENT: Ft Bnd County		REPORT NO.: 4
PROJECT LOCATION: S. Fry rd.		DATE: 4/23/15
PROJECT NAME: HEB Left turn Lane		DAY: Thurs
CONTRACTOR:		AEC PROJECT NO.: 134-15
		REQUESTED BY:

TECHNICIAN or PROJECT MANAGER TIME

TECHNICIAN or PROJECT MANAGER: Nick Fuentes		CLASSIFICATION: NICET II	
Leave Office: 8:10am	Arrive Site: 9:00am	Leave Site: 5:45pm	Arrive Office: 6:45pm
Lunch: 1/2	Standby: -	Overtime: 2.25	Total Hours: 10.25
TEST / SERVICE	QUANTITY	REMARKS: (Sample No. / Location / Observations / Actions)	HOURS
FDT	3	Technician performed 3 FDTs on Left turn lane to HEB S. Fry rd. West bound. STA 1+20 to 3+50	
		Technician sampled CSS for Comp. STR.	
			TOTAL =


4/23/15

TECHNICIAN or PROJECT MANAGER DATE CLIENT REPRESENTATIVE DATE



REPORT OF COMPRESSIVE STRENGTH OF CEMENT STABILIZED SAND

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 4/23/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15 AEC REPORT NO.: 5 Page 1 of 1

REMARKS: A representative sample was obtained from a truck load of cement stabilized sand as-delivered from Hallett Materials on the above referenced project. The representative sample was sealed in a plastic bag and was delivered to Aviles Engineering Corporation's laboratory to be tested for compressive strength. A moisture content was performed on the sample in accordance with ASTM D 2216. Compressive strength specimens were molded in an as-received moisture content in 4.0" diameter, 4.5" high vertically split molds in general accordance with ASTM D 558-96 Method A. The specimens were cured in the molds while sealed in plastic bags at approximately 73.4 degrees F until the age of test. The specimens were removed from the plastic bags and the molds, capped with gypsum plaster, if required, and were tested for compressive strength in general accordance with Section 7 of ASTM D 1633-00 to determine compliance with project specifications. The results are as follows:

SUPPLIER: Hallett Materials PLANT NO.: 650 Hockley TICKET NO.: 54973
 TIME BATCHED: 8:48 AM TIME SAMPLED: 9:40 AM TRUCK NO.: 710
 MIXTURE ID FROM TICKET: 1.5 SK Stabilized Sand AVG. DRY DENSITY, PCF: 115.9
 TIME SPECIMENS MOLDED: 11:15 AM MOISTURE CONTENT OF MATERIAL AT THE TIME OF MOLDING: 14.2%

AREA WHERE LOAD WAS PLACED IN THE FIELD: Left Turning Lane on South Fry Road @ Station 1+61 (Subgrade)

Specimen ID	Date Tested	Age, hrs./days	Average Diameter, in.	Average Height, in.	Cross-Sectional Area, sq. in.	Maximum Load, lbs.	Compressive Strength, psi
69	4/25/15	48 Hours	3.99	4.58	12.51	3680	295
66	4/25/15	48 Hours	4.00	4.59	12.53	3610	290
HC Item 433 Minimum Average 48 Hour Comp. Strength = 100 psi						Average 48 Hour = 291	
87	4/30/15	7 Days	3.99	4.59	12.51	5200	415
68	4/30/15	7 Days	3.99	4.59	12.48	5290	425
						Average 7 Day = 420	


The results indicate the strength level of the sample tested at 48 hours meets the minimum strength requirements of Harris County Item 433 for Cement Stabilized Sand for Bedding and Backfill Material.

If there are any questions concerning this report or if we can provide any additional information, please contact us at your convenience.

COMMENTS:

The Contractor was Jerdon

Distribution: Rick Stagle, PE (Fort Bend County)

Respectfully submitted,
 Aviles Engineering Corporation

 Ronald E. Ortwerth, P.E.
 Senior Vice President

The results are applicable only to the sample tested and may not necessarily be indicative of the entire material delivered to the project on this date. This report is for the exclusive use of the client to whom it is addressed and should not be reproduced without our permission.



REPORT OF FIELD MOISTURE AND DENSITY TESTS

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 4/24/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15
	AEC REPORT NO.: 6 Page 1 of 1

TECHNICIAN: N. Fuentes, NICET II **TIME - REGULAR HOURS:** 8 **OVERTIME HOURS:** 2.25

NUCLEAR GAUGE INFORMATION:		MANUFACTURER: Troxler	GAUGE DENSITY: None
MODEL: 3430	SERIAL NO.: 68525	ADJUSTMENTS:	MOISTURE: None
STANDARD COUNTS:	DENSITY: 2583	MOISTURE: 629	

Tests Performed in General Accordance with ASTM D 6938-07b

MOISTURE DENSITY RELATIONSHIP DATA:

MDR RPT. NO.	VISUAL CLASSIFICATION OF SOIL	MDR PROCEDURE	MAX. DRY DENS., PCF	OPTIMUM MOISTURE, %
2	1.5 Sack Stabilized Sand (Hallett: Katy-Hockley)	D 558	121.5	11.3

GENERAL AREA TESTED: Left Turn Lane West Bound South Fry Road from Station 3+50 to 5+57

TEST NO.	MDR NO.	ELEVATION	PROBE DEPTH, IN.	WET DENSITY, PCF	DRY DENSITY, PCF	MOISTURE CONTENT, %	COMPACTION, %	COMMENTS
1	2	Subgrade	8	130.3	117.3	11.1	96.5	5 Pass
TEST LOCATION: Station 3+60, 6' North of South Edge								
2	2	Subgrade	8	131.1	118.6	10.5	97.6	5 Pass
TEST LOCATION: Station 4+20, 3' North of South Edge								
3	2	Subgrade	8	129.0	116.2	11.0	95.7	5 Pass
TEST LOCATION: Station 5+50, 2' North of South Edge								
TEST LOCATION:								
TEST LOCATION:								

COMMENTS: Specifications, Moist Content - % from Optimum Moisture	S - Cam Stab Sand for Rdwy	NS to + NS	Min. 95	NS - Not Specified
B - % Compaction below Specified Requirement				NUP - Not Under Pavement
C - Retest of Previous Test D - Moisture Content Exceeds Specified Limit E - Moisture Content Below Specified Limit				

REMARKS: AEC monitored placement of the material tested.

The contractor was Jabar

Distribution: Rick Staigle, PE (Fort Bend County)

Respectfully submitted,
Aviles Engineering Corporation

 Ronald E. Ortwerth, P.E.
 Senior Vice President

The results are applicable only to the locations tested and/or inspected and are not necessarily indicative of the entire lift or area where tests were performed. This report is for the exclusive use of the client to whom it is addressed and should not be reproduced without our permission.




AVILES ENGINEERING CORPORATION (TBPE Firm Registration No. F-42)
 5790 Windfern, Houston, Texas 77041 - 713-895-7645 - Fax 713-895-7943

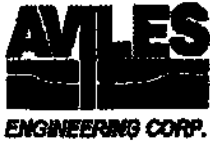
DAILY PROJECT ACTIVITY REPORT

CLIENT: Ft Bend		REPORT NO.: 6
PROJECT LOCATION: S. Fry Rd.		DATE: 4/24/15
PROJECT NAME: HEB Left turn lane		DAY: FRI
CONTRACTOR:		AEC PROJECT NO.: 134-15
		REQUESTED BY:

TECHNICIAN or PROJECT MANAGER TIME

TECHNICIAN or PROJECT MANAGER: Nick Fuentes		CLASSIFICATION: NICET	
Leave Office: 8:00am	Arrive Site: 9:00	Leave Site: 5:45pm	Arrive Office: 6:45pm
Lunch: 1/2	Standby: —	Overtime: 2.25	Total Hours: 10.25
TEST / SERVICE	QUANTITY	REMARKS: (Sample No. / Location / Observations / Actions)	HOURS
EDT	3	Technician performed 3 EDTs on WB S. Fry Rd HEB	
SPU	1	Left turn lane STA. 3+50 to STA 5+57	
		Technician sampled CSS for comp. str.	
			TOTAL =


4/24/15
DATE
CLIENT REPRESENTATIVE
DATE



REPORT OF COMPRESSIVE STRENGTH OF CEMENT STABILIZED SAND

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 4/24/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15
	AEC REPORT NO.: 7 Page 1 of 1

REMARKS: A representative sample was obtained from a truck load of cement stabilized sand as-delivered from Hallett Materials on the above referenced project. The representative sample was sealed in a plastic bag and was delivered to Aviles Engineering Corporation's laboratory to be tested for compressive strength. A moisture content was performed on the sample in accordance with ASTM D 2216. Compressive strength specimens were molded in an as-received moisture content in 4.0" diameter, 4.5" high vertically split molds in general accordance with ASTM D 558-96 Method A. The specimens were cured in the molds while sealed in plastic bags at approximately 73.4 degrees F until the age of test. The specimens were removed from the plastic bags and the molds, capped with gypsum plaster, if required, and were tested for compressive strength in general accordance with Section 7 of ASTM D 1633-00 to determine compliance with project specifications. The results are as follows:

SUPPLIER: Hallett Materials PLANT NO.: 850 Hockley TICKET NO.: 55066
 TIME BATCHED: 7:37 AM TIME SAMPLED: 8:45 AM TRUCK NO.: 1
 MIXTURE ID FROM TICKET: 1.5 SK Stabilized Sand AVG. DRY DENSITY, PCF: 115.9
 TIME SPECIMENS MOLDED: 10:15 AM MOISTURE CONTENT OF MATERIAL AT THE TIME OF MOLDING: 9.3%
 AREA WHERE LOAD WAS PLACED IN THE FIELD: Left Turning Lane on South Fry Road @ Station 3+60 (Subgrade)

Specimen ID	Date Tested	Age, hrs./days	Average Diameter, in.	Average Height, in.	Cross-Sectional Area, sq. in.	Maximum Load, lbs.	Compressive Strength, psi
678	4/26/15	48 Hours	4.00	4.58	12.54	3050	245
638	4/26/15	48 Hours	4.00	4.58	12.57	2980	235
HC Item 433 Minimum Average 48 Hour Comp. Strength = 100 psi						Average 48 Hour = 240	
781	5/1/15	7 Days	4.00	4.59	12.57	4860	385
881	5/1/15	7 Days	4.01	4.57	12.60	4770	380
						Average 7 Day = 383	

The results indicate the strength level of the sample tested at 48 hours meets the minimum strength requirements of Harris County Item 433 for Cement Stabilized Sand for Bedding and Backfill Material.

If there are any questions concerning this report or if we can provide any additional information, please contact us at your convenience.

COMMENTS:

The Contractor was Jerdon

Distribution: Rick Staigle, PE (Fort Bend County)

Respectfully submitted,
 Aviles Engineering Corporation

Ronald E. Ortwerth, P.E.
 Senior Vice President



REPORT OF CONCRETE PLACEMENT INSPECTION & TESTING

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 04/29/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15
	AEC REPORT NO.: 8 Page 1 of 1

TECHNICIAN: F. Wright, ACI TIME - REGULAR HOURS: 3.75 OVERTIME HOURS: 3.25 (am)

FIELD PLACEMENT INFORMATION

Observed placement of 124 cubic yards of concrete on the above referenced project.

The concrete was placed by Jerdon Enterprise LP

The following information was recorded from the delivery ticket of the truck sampled for testing:

CONCRETE SUPPLIER: <u>Allied Concrete</u>	PLANT: <u>4A/4B</u>
MIX DESIGN NO.: <u>24137006</u>	MIX IDENTIFICATION: <u>7.0 SACK, 1.5 Gravel, Paving Mix</u>
TRUCK NO.: <u>399</u> CU.YDS. IN TRUCK: <u>10.0</u>	TICKET NO.: <u>4459140</u> TIME BATCHED: <u>4:04 AM</u>
CUMULATIVE YARDAGE OF PLACEMENT: <u>20</u>	INITIAL CURING TEMPERATURE, °F: MIN.: <u>53</u> MAX.: <u>82</u>

GENERAL IDENTIFICATION OF PLACEMENT:	<u>Paving: Left Turn Lane West Bound South Fry Road from Station 1+20.5 to 5+57.20</u>
--------------------------------------	--

FIELD TESTING PERFORMED ON SAMPLE

SAMPLE LOCATION: <u>Station 4+85</u>	
TIME SAMPLED: <u>4:53 AM</u>	AIR TEMPERATURE, °F: <u>54</u>
SLUMP, IN.: <u>4.5</u>	CONCRETE TEMPERATURE, °F: <u>66</u>
AIR CONTENT, %: <u>3.1</u>	WATER ADDED IN FIELD TO TRUCK, GAL.: <u>10</u>
TEST METHODS: <u>ASTM C 172; C 143; C 1064; C 31 (Excluding 10.1.2) and C 231 (Excluding 6.) or C 173</u>	

LABORATORY COMPRESSION TESTING RESULTS

TEST METHODS: ASTM C 511; C 1231; C 39 and C31

AEC LAB. NO.	OTHER ID OR SET NO.	DATE OF TEST	TEST AGE, DAYS	CYLINDER DIAMETER, IN.	CYLINDER AREA, SQ. IN.	TOTAL LOAD, LBS.	COMPRESSIVE STRENGTH, PSI	TYPE OF BREAK
1026A	---	04/30/15	1	6.01	28.369	105720	3730	3
1026B	---	05/06/15	7					
1026C	---	05/06/15	7					
1026D	---	05/27/15	28					
1026E	---	05/27/15	28					
SPECIFICATIONS:			28				3000	

REMARKS:

DATE RECEIVED IN LAB: 4/30/2015

Distribution: Rick Staigle, PE (Fort Bend County)

Respectfully submitted,
Aviles Engineering Corporation

Ronald E. Ortwerth, P.E.
Senior Vice President



REPORT OF CONCRETE PLACEMENT INSPECTION & TESTING

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 04/29/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15
	AEC REPORT NO.: 8 Page 1 of 1 Revision No. 1
TECHNICIAN: F. Wright, ACI	TIME - REGULAR HOURS: 3.75 OVERTIME HOURS: 3.25 (am)

FIELD PLACEMENT INFORMATION

Observed placement of 124 cubic yards of concrete on the above referenced project.
 The concrete was placed by Jerdon Enterprise LP

The following information was recorded from the delivery ticket of the truck sampled for testing:

CONCRETE SUPPLIER: Allied Concrete	PLANT: 4A/4B		
MIX DESIGN NO.: 24137006	MIX IDENTIFICATION: 7.0 SACK, 1.5 Gravel, Paving Mix		
TRUCK NO.: 399	CU.YDS. IN TRUCK: 10.0	TICKET NO.: 4459140	TIME BATCHED: 4:04 AM
CUMULATIVE YARDAGE OF PLACEMENT: 20	INITIAL CURING TEMPERATURE, °F: MIN.: 53	MAX.: 82	

GENERAL IDENTIFICATION OF PLACEMENT:	Paving: Left Turn Lane West Bound South Fry Road from Station 1+20.5 to 5+57.20
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FIELD TESTING PERFORMED ON SAMPLE

SAMPLE LOCATION: Station 4+86	
TIME SAMPLED: 4:53 AM	AIR TEMPERATURE, °F: 54
SLUMP, IN.: 4.5	CONCRETE TEMPERATURE, °F: 66
AIR CONTENT, %: 3.1	WATER ADDED IN FIELD TO TRUCK, GAL: 10
TEST METHODS: ASTM C 172; C 143; C 1064; C 31 (Excluding 10.1.2) and C 231 (Excluding 8.) or C 173	

LABORATORY COMPRESSION TESTING RESULTS

TEST METHODS: ASTM C 511; C 1231; C 39 and C31

AEC LAB. NO.	OTHER ID OR SET NO.	DATE OF TEST	TEST AGE, DAYS	CYLINDER DIAMETER, IN.	CYLINDER AREA, SQ. IN.	TOTAL LOAD, LBS.	COMPRESSIVE STRENGTH, PSI	TYPE OF BREAK
1026A	---	04/30/15	1	6.01	28.369	105720	3730	3
1026B	---	05/06/15	7	5.99	28.180	143650	5100	5
1026C	---	05/06/15	7	5.99	28.180	134080	4780	3
1026D	---	05/27/15	28					
1026E	---	05/27/15	28					
SPECIFICATIONS:			28				3000	

REMARKS:

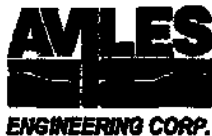
DATE RECEIVED IN LAB: 4/30/2015

Distribution: Rick Staigle, PE (Fort Bend County)

Respectfully submitted,
 Aviles Engineering Corporation

Ronald E. Ortwerth, P.E.
 Senior Vice President

These test results are applicable only to the specific concrete sample tested and may not be indicative of the strength or quality of other concrete placed on this date. This report is for the exclusive use of the client to whom it is addressed and may not be reproduced, except in full, without written permission from AEC.



REPORT OF CONCRETE PLACEMENT INSPECTION & TESTING

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 04/29/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15 AEC REPORT NO.: 8 <i>Page 1 of 1</i> Revision No. 2
TECHNICIAN: F. Wright, ACI	TIME - REGULAR HOURS: 3.75 OVERTIME HOURS: 3.25 (am)

FIELD PLACEMENT INFORMATION

Observed placement of 124 cubic yards of concrete on the above referenced project.

The concrete was placed by Jerdon Enterprise LP

The following information was recorded from the delivery ticket of the truck sampled for testing:

CONCRETE SUPPLIER: Allied Concrete	PLANT: 4A/4B		
MIX DESIGN NO.: 24137006	MIX IDENTIFICATION: 7.0 SACK, 1.5 Gravel, Paving Mix		
TRUCK NO.: 399	CU.YDS. IN TRUCK: 10.0	TICKET NO.: 4459140	TIME BATCHED: 4:04 AM
CUMULATIVE YARDAGE OF PLACEMENT: 20	INITIAL CURING TEMPERATURE, °F: MIN.: 53	MAX.: 82	

GENERAL IDENTIFICATION OF PLACEMENT: Paving: Left Turn Lane West Bound South Fry Road from Station 1+20.5 to 5+57.20

FIELD TESTING PERFORMED ON SAMPLE

SAMPLE LOCATION: Station 4+85	AIR TEMPERATURE, °F: 54
TIME SAMPLED: 4:53 AM	CONCRETE TEMPERATURE, °F: 66
SLUMP, IN.: 4.5	WATER ADDED IN FIELD TO TRUCK, GAL: 10
AIR CONTENT, %: 3.1	TEST METHODS: ASTM C 172; C 143; C 1064; C 31 (Excluding 10.1.2) and C 231 (Excluding 6.) or C 173

LABORATORY COMPRESSION TESTING RESULTS

TEST METHODS: ASTM C 511; C 1231; C 39 and C31

AEC LAB. NO.	OTHER ID OR SET NO.	DATE OF TEST	TEST AGE, DAYS	CYLINDER DIAMETER, IN.	CYLINDER AREA, SQ. IN.	TOTAL LOAD, LBS.	COMPRESSIVE STRENGTH, PSI	TYPE OF BREAK
1026A	---	04/30/15	1	6.01	28.369	105720	3730	3
1026B	---	05/06/15	7	5.99	28.180	143650	5100	5
1026C	---	05/06/15	7	5.99	28.180	134080	4760	3
1026D	---	05/27/15	28	6.01	28.369	169100	5960	5
1026E	---	05/27/15	28	6.00	28.274	165120	5840	3
SPECIFICATIONS:			28				3000	Meets Specifications

REMARKS:

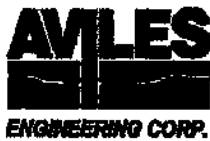
DATE RECEIVED IN LAB: 4/30/2015

Distribution: Rick Staigle, PE (Fort Bend County)

Respectfully submitted,
 Aviles Engineering Corporation

 Ronald E. Ortwerth, P.E.
 Senior Vice President

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REPORT OF CONCRETE PLACEMENT INSPECTION & TESTING

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 04/29/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15 AEC REPORT NO.: 9 Page 1 of 1

TECHNICIAN: F. Wright, ACI TIME - REGULAR HOURS: See Rpt 8 OVERTIME HOURS: _____

FIELD PLACEMENT INFORMATION

Observed placement of 124 cubic yards of concrete on the above referenced project.
 The concrete was placed by Jerdon Enterprise LP

The following information was recorded from the delivery ticket of the truck sampled for testing:

CONCRETE SUPPLIER: Allied Concrete PLANT: 4A/4B
 MIX DESIGN NO.: 24137006 MIX IDENTIFICATION: 7.0 SACK, 1.5 Gravel, Paving Mix
 TRUCK NO.: 349 CU.YDS. IN TRUCK: 10.0 TICKET NO.: 4459159 TIME BATCHED: 5:54 AM
 CUMULATIVE YARDAGE OF PLACEMENT: 109.5 INITIAL CURING TEMPERATURE, °F: MIN.: 53 MAX.: 82

GENERAL IDENTIFICATION OF PLACEMENT: Paving: Left Turn Lane West Bound South Fry Road from Station 1+20.5 to 5+57.20

FIELD TESTING PERFORMED ON SAMPLE

SAMPLE LOCATION: Station 2+18
 TIME SAMPLED: 6:48 AM AIR TEMPERATURE, °F: 52
 SLUMP, IN.: 5.75 CONCRETE TEMPERATURE, °F: 67
 AIR CONTENT, %: 3.3 WATER ADDED IN FIELD TO TRUCK, GAL: 0
 TEST METHODS: ASTM C 172; C 143; C 1084; C 31 (Excluding 10.1.2) and C 231 (Excluding 6.) or C 173

LABORATORY COMPRESSION TESTING RESULTS

TEST METHODS: ASTM C 511; C 1231; C 39 and C31

AEC LAB. NO.	OTHER ID OR SET NO.	DATE OF TEST	TEST AGE, DAYS	CYLINDER DIAMETER, IN.	CYLINDER AREA, SQ. IN.	TOTAL LOAD, LBS.	COMPRESSIVE STRENGTH, PSI	TYPE OF BREAK
1023A	---	04/30/15	1	6.00	28.274	94710	3350	4
1023B	---	05/08/15	7					
1023C	---	05/08/15	7					
1023D	---	05/27/15	28					
1023E	---	05/27/15	28					
SPECIFICATIONS:			28				3000	

REMARKS:

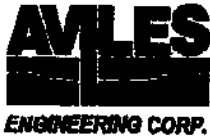
DATE RECEIVED IN LAB: 4/30/2015

Respectfully submitted,
 Aviles Engineering Corporation

Ronald E. Ortwerth, P.E.
 Senior Vice President

Distribution: Rick Stalgie, PE (Fort Bend County)

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REPORT OF CONCRETE PLACEMENT INSPECTION & TESTING

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 04/29/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15 AEC REPORT NO.: 9 Page 1 of 1 Revision No. 1
TECHNICIAN: F. Wright, ACI	TIME - REGULAR HOURS: See Rpt 8 OVERTIME HOURS:

FIELD PLACEMENT INFORMATION

Observed placement of 124 cubic yards of concrete on the above referenced project.
The concrete was placed by Jerdon Enterprise LP

The following information was recorded from the delivery ticket of the truck sampled for testing:

CONCRETE SUPPLIER: <u>Allied Concrete</u>	PLANT: <u>4A/4B</u>
MIX DESIGN NO.: <u>24137006</u>	MIX IDENTIFICATION: <u>7.0 SACK, 1.5 Gravel, Paving Mix</u>
TRUCK NO.: <u>349</u> CU.YDS. IN TRUCK: <u>10.0</u>	TICKET NO.: <u>4459159</u> TIME BATCHED: <u>5:54 AM</u>
CUMULATIVE YARDAGE OF PLACEMENT: <u>109.5</u>	INITIAL CURING TEMPERATURE, °F: MIN.: <u>53</u> MAX.: <u>82</u>

GENERAL IDENTIFICATION OF PLACEMENT:	Paving: Left Turn Lane West Bound South Fry Road from Station 1+20.5 to 5+57.20
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FIELD TESTING PERFORMED ON SAMPLE

SAMPLE LOCATION: <u>Station 2+18</u>	AIR TEMPERATURE, °F: <u>52</u>
TIME SAMPLED: <u>6:48 AM</u>	CONCRETE TEMPERATURE, °F: <u>67</u>
SLUMP, IN.: <u>5.75</u>	WATER ADDED IN FIELD TO TRUCK, GAL.: <u>0</u>
AIR CONTENT, %: <u>3.3</u>	TEST METHODS: <u>ASTM C 172; C 143; C 1064; C 31 (Excluding 10.1.2) and C 231 (Excluding 6.) or C 173</u>

LABORATORY COMPRESSION TESTING RESULTS

TEST METHODS: ASTM C 511; C 1231; C 39 and C31

AEC LAB. NO.	OTHER ID OR SET NO.	DATE OF TEST	TEST AGE, DAYS	CYLINDER DIAMETER, IN.	CYLINDER AREA, SQ. IN.	TOTAL LOAD, LBS.	COMPRESSIVE STRENGTH, PSI	TYPE OF BREAK
1023A	---	04/30/15	1	6.00	28.274	94710	3350	4
1023B	---	05/06/15	7	6.00	28.274	105610	3740	5
1023C	---	05/06/15	7	6.00	28.274	108220	3830	5
1023D	---	05/27/15	28					
1023E	---	05/27/15	28					
SPECIFICATIONS:			28				3000	

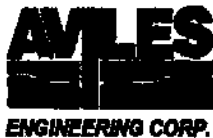
REMARKS:

DATE RECEIVED IN LAB: 4/30/2015

Distribution: Rick Stagle, PE (Fort Bend County)

Respectfully submitted,
Aviles Engineering Corporation

Ronald E. Ortwerth, P.E.
Senior Vice President



REPORT OF CONCRETE PLACEMENT INSPECTION & TESTING

PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 04/29/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15
	AEC REPORT NO.: 9 Page 1 of 1 Revision No. 2
TECHNICIAN: F. Wright, ACI	TIME - REGULAR HOURS: See Rpt 8 OVERTIME HOURS:

FIELD PLACEMENT INFORMATION

Observed placement of 124 cubic yards of concrete on the above referenced project.
 The concrete was placed by Jerdon Enterprise LP

The following information was recorded from the delivery ticket of the truck sampled for testing:

CONCRETE SUPPLIER: Allied Concrete	PLANT: 4A/4B
MIX DESIGN NO.: 24137006	MIX IDENTIFICATION: 7.0 SACK, 1.5 Gravel, Paving Mix
TRUCK NO.: 349 CU.YDS. IN TRUCK: 10.0	TICKET NO.: 4459159 TIME BATCHED: 5:54 AM
CUMULATIVE YARDAGE OF PLACEMENT: 109.5	INITIAL CURING TEMPERATURE, °F: MIN.: 53 MAX.: 82

GENERAL IDENTIFICATION OF PLACEMENT:	Paving: Left Turn Lane West Bound South Fry Road from Station 1+20.5 to 5+57.20
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FIELD TESTING PERFORMED ON SAMPLE

SAMPLE LOCATION: Station 2+18	
TIME SAMPLED: 6:48 AM	AIR TEMPERATURE, °F: 52
SLUMP, IN.: 5.75	CONCRETE TEMPERATURE, °F: 67
AIR CONTENT, %: 3.3	WATER ADDED IN FIELD TO TRUCK, GAL.: 0
TEST METHODS: ASTM C 172; C 143; C 1064; C 31 (Excluding 10.1.2) and C 231 (Excluding 6.) or C 173	

LABORATORY COMPRESSION TESTING RESULTS

TEST METHODS: ASTM C 511; C 1231; C 39 and C 31

AEC LAB. NO.	OTHER ID OR SET NO.	DATE OF TEST	TEST AGE, DAYS	CYLINDER DIAMETER, IN.	CYLINDER AREA, SQ. IN.	TOTAL LOAD, LBS.	COMPRESSIVE STRENGTH, PSI	TYPE OF BREAK
1023A	---	04/30/15	1	6.00	28.274	94710	3350	4
1023B	---	05/06/15	7	6.00	28.274	105610	3740	5
1023C	---	05/06/15	7	6.00	28.274	108220	3830	5
1023D	---	05/27/15	28	6.01	28.369	170960	6030	5
1023E	---	05/27/15	28	6.00	28.274	173800	6150	3
SPECIFICATIONS:			28			3000	Meets Specifications	

REMARKS:

DATE RECEIVED IN LAB: 4/30/2015

Distribution: Rick Stalgie, PE (Fort Bend County)

Respectfully submitted,
 Aviles Engineering Corporation

 Ronald E. Ortwerth, P.E.
 Senior Vice President

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REPORT OF CYLINDER PICK UP

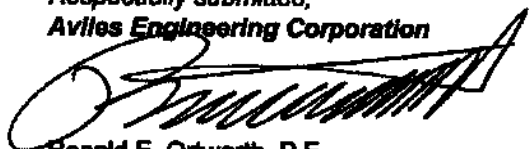
PROJECT: HEB - Fry Road @ Grand Parkway Left Turn Lane	DATE: 4/30/15
CLIENT: Fort Bend County Engineering	AEC PROJECT NO.: 134-15
	AEC REPORT NO.: 10 <i>Page 1 of 1</i>
TECHNICIAN: J. Almaguer, ACI-I	REG.: 2.25 O.T.:

REMARKS: An Aviles Engineering Corporation (AEC) representative picked up two (2) sets of six (6) concrete test cylinders at the above referenced project. The concrete test cylinders were delivered to AEC's laboratory for curing and testing for compressive strength.

If there are any questions concerning this report or if we can provide any additional information, please contact us at your convenience.

COMMENTS:

Distribution: Rick Staigle, PE (Fort Bend County)

Respectfully submitted,
Aviles Engineering Corporation

Ronald E. Ortwerth, P.E.
Senior Vice President

